53-23-05

n application of:

Stephen Melvin Enrique Musoll

Mario D. Nemirovsky Nandakumar Sampath

Serial No.:

09/900393

Filed:

07/05/01

Docket:

MIPS.0175-00-US

For:

METHOD AND APPARATUS FOR NON-SPECULATIVE PRE-FETCH

OPERATION IN DATA PACKET PROCESSING

INFORMATION DISCLOSURE STATEMENT SUBMITTED UNDER 37 CFR 1.97(D) AND 1.97 (E)(2)

Attached hereto is Form PTO-1449 listing documents believed relevant to the subject application. It is respectfully requested that the Examiner review the information disclosed herein in detail, independently evaluate each item carefully in the consideration of the pending claims and return an initialed copy of each form to the undersigned.

This disclosure statement should not be construed as a representation that a search has been made, that no other material information as defined in 37 C.F.R. § 1.56(a) exists, or as an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b) or is available as a reference under 35 U.S.C. § 102 et seq. Applicant reserves the right to swear behind or otherwise disprove the alleged "prior" nature of any art cited should the facts support and the situation warrant such an action.

It is believed that this disclosure complies with the requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98, and the Manual of Patent Examining Procedures § 609. If for some reason the examiner considers otherwise, it is respectfully requested that the undersigned be called so that any deficiencies can be remedied.

A copy of each document is enclosed. Some of the documents may have markings thereon. No significance is intended to be attached to the markings.

No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement. The information cited in the information disclosure statement was cited by the United States Patent Office in one or more applications that are related to the present application.

Also attached hereto/is/ a check in the amount of \$180.00 for the fee set forth in § 1.17(p).

Respectfully submitted,

03/24/2005 HTECKLU1 00000008 09900393

01 FC:1806

180.00 GP

James WW Juffman Huffman Law Group, Inc. Registration No. 35,549

1832 N. Cascade Ave. Colorado Springs, CO 80907 719.475.7103 719.623.0141 fax jim@huffmanlaw.net

Date: <u>3-14.05</u>

"EXPRESS MAIL" mailing label number <u>E000424005</u>2 US

Date of Deposit <u>3-22-05</u>. I hereby certify that this paper is being deposited with the U.S. Postal Service Express Mail Post Office to Addressee Service under 37 C.F.R. §1.10 on the date shown above and is addressed to the U.S. Commissioner of Postario and Trademarks, Weekington D.C. 20221

Patents and Trademarks, Washington, D.C. 20231. By:

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

titute for form 1449A/PTO

Sheet

1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary

3

of

| Complete if Known | | | |
|------------------------|---|--|--|
| Application Number | 09/900393 | | |
| Filing Date | 07/05/01 | | |
| First Named Inventor | Stephen Melvin | | |
| | Enrique Musoll | | |
| | Mario D. Nemirovsky Nandakumar Sampath | | |
| Group Art Unit | Hassan Kizou | | |
| Examiner Name | 2662 | | |
| Attorney Docket Number | MIPS.0175-00-US | | |

| Examiner Initials | Cite | U.S. Patent Docum | nent | Name of Detector of April 2011 | Date of Publication of | Bases Columns Lines Where Belgins |
|----------------------|------|-------------------|-------------------|---|------------------------------|---|
| | No.1 | Number | Kind Code 2 | Name of Patentee or Applicant of Cited Document | Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevan Passages or Relevant Figures Appear |
| | AA | 4200927 | | Huges et al | 04/29/1980 | |
| | AB | 5708814 | | Short et al | 01/13/1998 | |
| | AC | 5724565 | | Dubey et al | 03/03/1998 | |
| | AD | 5784649 | | Begur et al | 07/21/1998 | |
| | AE | 6460105 | | Jones et al | 10/1/2002 | |
| | AF | 6523109 | | Stephan G. Meier | 02/18/2003 | |
| | AG | 6529515 | | Raz et al | 03/04/2003 | |
| | AH | 6640248 | | Jacob W. Jorgensen | 10/28/2003 | |
| | Al | 6625808 | | David R. Tarditi | 09/23/2003 | |
| | AJ | 6738371 | | Lawrence Ayers | 05/18/2004 | |
| | AK | 6738378 | | Tuck, III et al | 05/18/2004 | |
| | AL | 6813268 | | Kalkunte et al | 11/02/2004 | |
| | АМ | 6535905 | | Kalafatis et al | 03/18/2003 | |
| | AN | 20010004755 | | Levy et al | 06/21/2001 | |
| | AO | 20010005253 | | Hiroshi Komatsu | 06/28/2001 | |
| | AP | 20020083173 | | Musoll et al | 06/27/2002 | |
| | AQ | 09/608750 | | Nemirovsky et al | Not published | |

| | FOREIGN PATENT DOCUMENTS | | | | | |
|----------|--------------------------|-------------------------|---------------------------|-------------------------------|------------------------------|--|
| Examiner | Cite | Foreign Patent Document | | Name of Patentee or Applicant | Date of Publication of | Page Column Lines When Relevant |
| Initials | No.1 | Number ⁴ | Kind Code ⁵ | of Cited Document | Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | BA | WO03005645 | | | | |
| | | A1 | | Sampath et al | 06/25/02 | |
| | ļ | | | | | |

| Examiner Signature | Date Considered | |
|-----------------------|--------------------|--|

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST .3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

2662

Hasan Kizou

MIPS.0175-00-US

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Group Art Unit

Examiner Name

Attorney Docket Number

stitute for form 1449A/PTO Complete if Known **Application Number** 09/900393 INFORMATION DISCLOSURE **Filing Date** 07/05/01 STATEMENT BY APPLICANT **First Named Inventor** Stephen Melvin **Enrique Musoll** (use as many sheets as necessary Mario D. Nemirovsky Nandakumar Sampath

of

3

3

Sheet

| | | OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS | | | | | |
|--------------------|--------------|--|--|--|--|--|--|
| Examiner Initials* | Cite No.1 | | | | | | |
| | CQ | DIEFENDORFF, KEITH ET AL. "AltiVec Extension to PowerPC Accelerates Media Processing." <i>IEEE Journal of Microelectronics</i> . Vol. 20, No. 2 (2000): pp. 85-95 | | | | | |
| | CR | GRUNEWALD, WINFRIED ET AL. "Towards Extremely Fast Context Switching in a Block Multithreaded Processor." Proceedings of EUROMICRO 22, 1996. pp. 592-599 | | | | | |
| | cs | BRADFORD, JEFFREY ET AL. "Efficient Synchronization for Multithreaded Processors." Workshop on Multithreaded Execution, Architecture, and Compilation. Jan-Feb 1998. pp. 1-4 | | | | | |
| | СТ | PAI, VIJAY ET AL. "An Evaluation of Memory Consistency Models for Shared-Memory Systems with ILP Processors." <i>Proceedings of ASPLOS-VII</i> , Oct. 1996: pp. 12-23, ACM, Inc. | | | | | |
| | CU | YOAZ ET AL. "Speculation Techniques for Improving Load Related Instruction Scheduling." 1999. Pages 42-53, IEEE. | | | | | |
| | cv | KESSLER, R. E. "The Alpha 21264 Microprocessor: Out-of-Order Execution at 600 MHz." August 1998. | | | | | |
| | cw | DONALSON ET AL. "DISC: Dynamic Instruction Stream Computer, An Evaluation of Performance." 26 th Hawaii Conference on Systems Sciences. Vol. 1. 1993. Pages 448-456. | | | | | |
| | сх | NEMIROVSKY ET AL. "DISC: Dynamic Instruction Stream Computer." ACM. 1991. Pages 163-171 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Examiner Signature | | Date Considered | | | | | |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

bstitute for form 1449A/PTO Complete if Known **Application Number** 09/900393 INFORMATION DISCLOSURE **Filing Date** 07/05/01 STATEMENT BY APPLICANT **First Named Inventor** Stephen Melvin (use as many sheets as necessary **Enrique Musoll** Mario D. Nemirovsky Nandakumar Sampath Group Art Unit 2662 **Examiner Name** Hasan Kizou 2 3 MIPS.0175-00-US Sheet of Attorney Docket Number

| | OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS | | | | | | | |
|-----------------------|---|--|-----------------------|--|--|--|--|--|
| Examiner Initials* | Cite No.1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | | | | | |
| | СА | MELVIN ET AL, "Extended Instruction Set for a Packet Processing Applications," July 5, 2001, Disclosure Document #496559, USPTO | | | | | | |
| | СВ | MUSOLL ET AL, "Hardware Algorithm for Alloca April 3, 2001, Disclosure Document #491557, U | | ing Consecutive Blocks of Memory," | | | | |
| | СС | MUSOLL ET AL, "Mechanism to Overflow Pack Fit into a Hardware Controlled Memeory,", July 3 | ets to a Software Co | ontrolled Memory When They Do Not Document #496391, USPTO | | | | |
| | CD | MUSOLL ET AL., "Mechanism for Allowing a Lir Packet to a Different Memeory Location," April 1 | nited Packet Head a | and/or Tail Growth Without Moving the | | | | |
| | CE | MUSOLL ET AL., "Mechanism to Activate a Cor Processing Core,: April 16, 2001, Disclosure Do | ntext When No Stream | am is Running in a Multi-Streaming | | | | |
| | CF | MUSOLL, ENRIQUE, "Functional Validation of a Document #494011, USPTO | | | | | | |
| | CG | YAMAMOTO, WAYNE. An Analysis of Multistreamed, Superscalar Processor Architectures. University of California Santa Barbara Dissertation. December 1995. Santa Barbara, US. | | | | | | |
| | СН | YAMAMOTO et al. "Increasing Superscalar Per and Compilation Techniques (PACT '95). 1995 | formance Through I | | | | | |
| | CI | The PowerPC Architecture: A Specification for a New Family of RISC Processors. 2 nd Ed. May 1994. pp. 70-72. Morgan Kaufmann. San Francisco, US. | | | | | | |
| | CJ | MC68020 32-Bit Microprocessor User's Manual. 3 rd Ed 1989. pp. 3-125, 3-126, and 3-127. Prentice Hall, NJ, US. | | | | | | |
| | СК | POTEL, M. J. "Real-Time Playback in Animation Systems." <i>Proceedings of the 4th Annual Conference on Computer Graphics and Interactive Techniques.</i> 1977. pp. 72-77. San Jose, CA, US. | | | | | | |
| | CL | ARM Architecture Reference Manual. 1996. pp | . 3-41, 3-42, 3-43, 3 | -67, and 3-68. Prentice Hall, NJ, US. | | | | |
| | СМ | ESA/390 Principles of Operation. IBM Online Publications Center Reference Number SA22-7201-08. Table of Contents and paras. 7.5.31 and 7.5.70. IBM Corporation. Boulder, CO, US. | | | | | | |
| | CN | MC88110 Second Generation RISC Microprocessor User's Manual. 1991. pp. 10-66, 10-67, and 10-71. Motorola, Inc. | | | | | | |
| | со | DIEFENDORFF, KEITH ET AL. "Organization of the Motorola 88110 Superscalar RISC Microprocessor." IEEE Journal of Microelectronics. April 1992. pp. 40-63. Vol. 12, No. 2. IEEE. New York, NY, US. | | | | | | |
| | СР | KANE, GERRY. PA-RISC 2.0 Architecture. 1996, pp. 7-106 and 7-107. Prentice Hall. NJ, US. | | | | | | |
| Examiner Signature | | | Date Considered | | | | | |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.